

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
ACTING AS THE DESIGNATED/ELECTED OFFICE

In re: Patent application of: James D. SAN ANTONIO, *et al.*

Application No.: 10/551,005
(International) (PCT/US2004/009668)

Filed:
(International) (March 29, 2004)

For: HEPARIN-BINDING PEPTIDES AND USES THEREOF

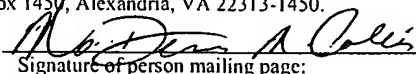
INFORMATION DISCLOSURE STATEMENT

MAIL STOP PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, submitted herewith are copies of the references listed in the accompanying Form PTO-1449, except for any US patents and published US patent applications which may be listed.

The Examiner is respectfully requested to review the items listed on the attached form and make them of record in the instant application as required by M.P.E.P. §609. It is requested that the Examiner initial the enclosed duplicate Form 1449, and return one copy to the undersigned.

<p style="text-align: center;">CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.10</p> <p>EXPRESS MAIL Mailing Label Number: <u>EV 320479796 US</u> Date of Deposit: <u>November 22, 2005</u></p> <p>I hereby certify that this correspondence, along with any paper referred to as being attached or enclosed, and/or fee, is being deposited with the United States Postal Service, "EXPRESS MAIL-POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10, on the date indicated above, and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.</p> <p style="text-align: right;"> Signature of person mailing page:</p> <p style="text-align: right;"><u>Denise M. Collins</u> Type or print name of person</p>

This Information Disclosure Statement should not be construed as a representation that the cited references are material or that more relevant prior art does not exist.

This Statement is being submitted before receipt of any office action on the merits. Thus, no fee is due for the filing of this paper. However, if a fee is due, please charge deposit account 50-0573.

Respectfully submitted,

JAMES D. SAN ANTONIO, et al.

BY 

DANIEL A. MONACO

Registration No. 30,480

DRINKER BIDDLE & REATH LLP

One Logan Square

18th and Cherry Streets

Philadelphia, PA 19103-6996

TEL: (215) 988-3312

FAX: (215) 988-2757

Attorney for Applicants

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 08321-125US1		SERIAL NO. 10/551,005
	APPLICANT: San Antonio et al.		
	INTERNATIONAL FILING DATE March 29, 2004		GROUP Not Yet Known

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	AA	5,770,563	6/1998	Roberts et al.			
	AB	6,395,707 B1	5/2002	Zioncheck, et al.			
	AC	6,194,558 B1	2/2001	Gianturco, et al.			
	AD	5,968,822	10/1999	Pecker, et al.			
	AE	5,851,989	12/1998	Chamow, et al.			
	AF	5,849,689	12/1998	Chamow, et al.			
	AG	5,556,836	9/1996	Roedern, et al.			
	AH	5,510,328	4/1996	Polarek, et al.			
	AI	5,464,815	11/1995	Chamow, et al.			
	AJ	5,409,897	4/1995	Thomas, et al.			
	AK	5,380,716	1/1995	Conrad, et al.			
	AL	5,332,671	7/1994	Ferrara, et al.			
	AM	5,238,919	8/1993	Zimmerman, et al.			
	AN	4,829,000	5/1989	Kleinman, et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION <u>YES</u> <u>NO</u>	
	AO	WO 97/47312	18 Dec 1997	PCT				
	AP	WO 95/13083	18 May 1995	PCT				
	AQ	WO 00/45831	10 Aug 2000	PCT				

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 08321-125US1	SERIAL NO. Not Yet Known
	APPLICANT: San Antonio et al.	
	INTERNATIONAL FILING DATE March 29, 2004	GROUP Not Yet Known

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	D.V. Sakharov et al., "Binding And Retention Of Polycationic Peptides And Dendrimers In The Vascular Wall", <i>FEBS Letters</i> , 537, 2003, pages 6-10.
AS	A. Lundquist et al., "Polycationic Peptides As Inhibitors Of Mast Cell Serine Proteases", <i>Biochemical Pharmacology</i> , 65, 2003, pages 1171-1180.
AT	E. Andersson et al., "Antimicrobial Activities Of Heparin-Binding Peptides", <i>Eur. J. Biochem</i> , 271, 2004, pages 1219-1226
AU	A. Verrecchio et al., "Design Of Peptides With High Affinities For Heparin And Endothelial Cell Proteoglycans", <i>The Journal Of Biological Chemistry</i> , 275, 2000, pages 7701-7707.
AV	B. Schick et al., "Novel Concatameric Heparin-Binding Peptides Reserve Heparin And Low-Molecular-Weight Heparin Anticoagulant Activities In Patient Plasma In Vitro And In Rats In Vivo", <i>Blood</i> , 103, 2004, pages 1356-1363.
AW	S.C. Hodgkinson, "Glycosaminoglycan Binding Characteristics Of The Insulin-Like Growth Factor-Binding Proteins", <i>Journal Of Molecular Endocrinology</i> , 13, 1994, pages 105-112.
AX	A.G. Gibson, et al., "Orientation Of Heparin-Binging Sites In Native Vitronectin", <i>The Journal Of Biological Chemistry</i> , 274, 1999, pages 6432-6442.
AY	H. Conrad, "Heparin-Binding Proteins", Academic Press, pages 192-196.
AZ	M.A. Pinhal, et al., "Heparin And A Cyclic Octaphenol-Octasulfonic Acid (GL-522-Y-1) Bind With High Affinity To A 47-KDA Protein From Vascular Endothelial Cell Surface And Stimulate The Synthesis And Structural Changes Of Heparan Sulfate Proteoglycan", <i>Thromb Res</i> , 103, 2001, pages 35-45
BA	Z Mostafavi-Pour, et al., "Identification Of A Novel Heparin-Binding Site In The Alternatively Spliced IIICS Region Of Fibronectin: Roles Of Integrins And Proteoglycans In Cell Adhesion To Fibronectin Splice Variants", <i>Matrix Biol</i> , 20, 2001, pages 63-73. Abstract Only.
BB	J Kappler et al., "Glycosaminoglycan-Binding Propertie And Secondary Structure Of The C-Terminus Of Netrin-1", <i>Biochem Biophys Res Commun</i> , 271, 2000, pages 287-91.
BC	S.E. Sakiyama et al., "Incorporation Of Heparin-Binding Peptides Into Fibrin Gels Enhances Neurite Extension: An Example Of Designer Matrices In Tissue Engineering", <i>FASEB J.</i> , 13, 1999, pages 2214-2224.
BD	S. Liu et al., "A Peptide Sequence Of Heparin/Heparan Sulfate (HP/HS)-Interacting Protein Supports Selective, High Affinity Binding Of HP/HS And Cell Attachment", <i>Journal of Biol Chem</i> , 273, 1998, pages 9718-9726.
BE	F. Chillemi et al., "Synthesis And Cytotoxic Activity Of New Peptides Containing Basic Amino Acid Residues", <i>Anticancer Res.</i> , 18, 1998, pages 757-758.
BF	R.E. Hileman et al., "Glycosaminoglycan-Protein Interactions; Definition of Consensus Sites In Glycosaminoglycan Binding Proteins", <i>Bioessays</i> , 20, 1998, pages 156-167.
BG	J.R. Fromm et al., "Pattern And Spacing Of Basic Amino Acids In Heparin Binding Sites", <i>Arch Biochem Biophys</i> 343, 1997, pages 92-100.
BH	S. Liu et al., "A Heparin-Binding Synthetic Peptide Of Heparin/Heparan Sulfate-Interacting Protein Modulates Blood Coagulation Activities", <i>Proc. Natl. Acad. Sci.</i> , 94, 1997, pages 1739-1744.

SUBSTITUTE FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 08321-125US1	SERIAL NO. Not Yet Known
		APPLICANT: San Antonio et al.	
		INTERNATIONAL FILING DATE March 29, 2004	GROUP Not Yet Known

BI	G.J. Taylor et al., "Glycosaminoglycan Specificity Of A Heparin-Binding Peptide", <i>Pept Res</i> , 1995, pages 286-293.
BJ	W.A. Patton 2 nd et al., "Identification Of A Heparin-Binding Protein Using Monoclonal Antibodies That Block Heparin Binding To Porcine Aortic Endothelial Cells", <i>Biochem J</i> , 311, 1995, pages 461-469. Abstract Only.
BK	K Mizuno et al., "Hairpin Loop And Second Kringle Domain Are Essential Sites For Heparin Binding And Biological Activity Of Hepatocyte Growth Factor", <i>J. Biol Chem</i> , 269, 1994, pages 1131-1136.
BL	T.W. Wakefield et al., "Reversal Of Low-Molecular-Weight Heparin Anticoagulation By Synthetic Protamine Analogues", <i>J. Surgical Research</i> , 56, 1994, pages 586-593.
BM	D.S. Ferran et al., "Design And Synthesis Of A Helix Heparin-Binding Peptide", <i>Biochemistry</i> , 31, 1992, pages 5010-5016.
BN	A.D. Cardin, "Molecular Modeling Of Protein-Glycosaminoglycan Interactions", <i>Arteriosclerosis</i> , 9, 1989, pages 21-32.
BO	B.R. Tomasini et al., "On The Identity Of Vitronectin And S-Protein: Immunological Crossreactivity And Functional Studies", <i>Blood</i> , 68, 3, 1986, pages 737-742.
BP	H. Margalit et al., "Comparative Analysis Of Structurally Defined Heparin Binding Sequences Reveals A Distinct Spatial Distribution Of Basic Residues", <i>The Journal Of Biological Chemistry</i> , 268, 1983, pages 19228-19231.
BQ	H.C. deBoer, et al., "Binding Of Vitronectin-Thrombin-Antithrombin III Complex To Human Endothelial Cells Is Mediated By The Heparin Binding Site Of Vitronectin", <i>The Journal Of Biological Chemistry</i> , 267, 1982, pages 2264-2268.
BR	J.M. McPherson, et al., "The Effects of Heparin on the Physicochemical Properties of Reconstituted Collagen", <i>Collagen Rel. Res.</i> , 1:65-82 (1998).
BS	L.H. Lam, et al., "The Separation of Active and Inactive Forms of Heparin", <i>Biochem. Biophys. Res. Comm.</i> , 69(2):570-577 (1976).
BT	J.D. San Antonio, et al., "Heparin Sensitive and Resistant Vascular Smooth Muscle Cells: Biology and Role in Restenosis", <i>Connective Tissue Research</i> , 37(1-2):87-103.
BU	J.S. San Antonio, et al., "Interactions of Syndecan-1 and Heparin with Human Collagens", <i>Glycobiology</i> , 4(3):327-332 (1994).
BV	U. Lindahl, et al., "Glycosaminoglycans and Their Binding to Biological Macromolecules", <i>Ann. Rev. Biochem.</i> , 47:385-417 (1978).
BW	J. Lawler, et al., "The Structure of Human Thrombospondin, and Adhesive Glycoprotein with Multiple Calcium-Binding Sites and Homologies with Several Different Proteins", <i>J. Cell Biology</i> , 103:1635-1648 (1986).
BX	E.C. Tsilibary, et al., "Heparin Type IV Collagen Interactions: Equilibrium Binding and Inhibition of Type IV Collagen Self-Assembly", <i>J. of Biological Chemistry</i> , 263(35): 19112-19118 (1988).
BY	F.J. Bober Barkalow, et al., "Localization of the Major Heparin-Binding Site in Fibronectin", <i>J. Biological Chemistry</i> , 266(12):7812-7818 (1991).
BZ	R. L. Jackson, et al., "Glycosaminoglycans: Molecular Properties, Protein Interactions, and Role in Physiological Processes", <i>Physiological Reviews</i> , 71(2):481-539 (1991).
CA	M.K. Lee, et al., "Analysis of Affinity and Structural Selectivity in the Binding of Proteins to Glycosaminoglycans: Development of a Sensitive Electrophoretic Approach", <i>Proc. Natl. Acad. Sci.</i> , 88:2768-2772 (1991).
CB	J. Sandstrom, et al., "The Heparin-Binding Domain of Extracellular Superoxide Dismutase C and Formation of Variants with Reduced Heparin Affinity", <i>J. Biological Chemistry</i> , 267(25):18205-18209 (1992).

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 08321-125US1	SERIAL NO. Not Yet Known
	APPLICANT: San Antonio et al.	
	INTERNATIONAL FILING DATE March 29, 2004	GROUP Not Yet Known

	CC	N. Guo, et al., "Heparin-Binding Peptides from the Type I Repeats of Thrombospondin", <i>Journal of Biological Chemistry</i> , 267(27):19349-19355 (1992).
	CD	M. Maccarana, et al. "Minimal Sequence in Heparin/Heparan Sulfate Required for Binding of Basic Fibroblast Growth Factor", <i>Journal of Biological Chemistry</i> , 268(32):23898-23905 (1993).
	CE	L.D. Thompson, et al., "Energetic Characterization of the Basic Fibroblast Growth Factor-Heparin Interaction: Identification of the Heparin Binding Domain", <i>Biochemistry</i> , 33:3831-3840 (1994).
	CF	N. Parthasarathy, et al., "Oligosaccharide Sequences of Endothelial Cell Surface Heparan Sulfate Proteoglycan with Affinity for Lipoprotein Lipase", <i>Journal of Biological Chemistry</i> , 269(35):22391-22396 (1994).
	CG	P. Wong, et al. "Analysis of Putative Heparin-Binding Domains of Fibroblast Growth Factor-1", <i>Journal of Biological Chemistry</i> , 270(43):25805-25811 (1995).
	CH	J.D. San Antonio, et al., "Mapping the Heparin-Binding Sites on Type 1 Collagen Monomers and Fibrils", <i>Journal of Cell Biology</i> , 125(5):1179-1188 (1994).
	CI	R. Matsumoto, et al., "Packing of Proteases and Proteoglycans in the Granules of Mast Cells and Other Hematopoietic Cells", <i>Journal of Biological Chemistry</i> , 270(33):19524-19531 (1995).
	CJ	U. Lindahl, et al. "Regulated Diversity of Heparan Sulfate", <i>Journal of Biological Chemistry</i> , 273(39):24979-24982 (1998).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 08321-125US1		SERIAL NO. 10/551,005
	APPLICANT: San Antonio et al.		
	INTERNATIONAL FILING DATE March 29, 2004		GROUP Not Yet Known

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	AA	5,770,563	6/1998	Roberts et al.			
	AB	6,395,707 B1	5/2002	Zioncheck, et al.			
	AC	6,194,558 B1	2/2001	Gianturco, et al.			
	AD	5,968,822	10/1999	Pecker, et al.			
	AE	5,851,989	12/1998	Chamow, et al.			
	AF	5,849,689	12/1998	Chamow, et al.			
	AG	5,556,836	9/1996	Roedern, et al.			
	AH	5,510,328	4/1996	Polarek, et al.			
	AI	5,464,815	11/1995	Chamow, et al.			
	AJ	5,409,897	4/1995	Thomas, et al.			
	AK	5,380,716	1/1995	Conrad, et al.			
	AL	5,332,671	7/1994	Ferrara, et al.			
	AM	5,238,919	8/1993	Zimmerman, et al.			
	AN	4,829,000	5/1989	Kleinman, et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION <u>YES</u> <u>NO</u>	
	AO	WO 97/47312	18 Dec 1997	PCT				
	AP	WO 95/13083	18 May 1995	PCT				
	AQ	WO 00/45831	10 Aug 2000	PCT				

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 08321-125US1	SERIAL NO. Not Yet Known
	APPLICANT: San Antonio et al.	
	INTERNATIONAL FILING DATE March 29, 2004	GROUP Not Yet Known

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	D.V. Sakharov et al., "Binding And Retention Of Polycationic Peptides And Dendrimers In The Vascular Wall", <i>FEBS Letters</i> , 537, 2003, pages 6-10.
AS	A. Lundquist et al., "Polycationic Peptides As Inhibitors Of Mast Cell Serine Proteases", <i>Biochemical Pharmacology</i> , 65, 2003, pages 1171-1180.
AT	E. Andersson et al., "Antimicrobial Activities Of Heparin-Binding Peptides", <i>Eur. J. Biochem</i> , 271, 2004, pages 1219-1226
AU	A. Verrecchio et al., "Design Of Peptides With High Affinities For Heparin And Endothelial Cell Proteoglycans", <i>The Journal Of Biological Chemistry</i> , 275, 2000, pages 7701-7707.
AV	B. Schick et al., "Novel Concatameric Heparin-Binding Peptides Reserve Heparin And Low-Molecular-Weight Heparin Anticoagulant Activities In Patient Plasma In Vitro And In Rats In Vivo", <i>Blood</i> , 103, 2004, pages 1356-1363.
AW	S.C. Hodgkinson, "Glycosaminoglycan Binding Characteristics Of The Insulin-Like Growth Factor-Binding Proteins", <i>Journal Of Molecular Endocrinology</i> , 13, 1994, pages 105-112.
AX	A.G. Gibson, et al., "Orientation Of Heparin-Binging Sites In Native Vitronectin", <i>The Journal Of Biological Chemistry</i> , 274, 1999, pages 6432-6442.
AY	H. Conrad, "Heparin-Binding Proteins", Academic Press, pages 192-196.
AZ	M.A. Pinhal, et al., "Heparin And A Cyclic Octaphenol-Octasulfonic Acid (GL-522-Y-1) Bind With High Affinity To A 47-KDA Protein From Vascular Endothelial Cell Surface And Stimulate The Synthesis And Structural Changes Of Heparan Sulfate Proteoglycan", <i>Thromb Res</i> , 103, 2001, pages 35-45
BA	Z Mostafavi-Pour, et al., "Identification Of A Novel Heparin-Binding Site In The Alternatively Spliced IIICS Region Of Fibronectin: Roles Of Integrins And Proteoglycans In Cell Adhesion To Fibronectin Splice Variants", <i>Matrix Biol</i> , 20, 2001, pages 63-73. Abstract Only.
BB	J Kappler et al., "Glycosaminoglycan-Binding Propertie And Secondary Structure Of The C-Terminus Of Netrin-1", <i>Biochem Biophys Res Commun</i> , 271, 2000, pages 287-91.
BC	S.E. Sakiyama et al., "Incorporation Of Heparin-Binding Peptides Into Fibrin Gels Enhances Neurite Extension: An Example Of Designer Matrices In Tissue Engineering", <i>FASEB J.</i> , 13, 1999, pages 2214-2224.
BD	S. Liu et al., "A Peptide Sequence Of Heparin/Heparan Sulfate (HP/HS)-Interacting Protein Supports Selective, High Affinity Binding Of HP/HS And Cell Attachment", <i>Journal of Biol Chem</i> , 273, 1998, pages 9718-9726.
BE	F. Chillemi et al., "Synthesis And Cytotoxic Activity Of New Peptides Containing Basic Amino Acid Residues", <i>Anticancer Res.</i> , 18, 1998, pages 757-758.
BF	R.E. Hileman et al., "Glycosaminoglycan-Protein Interactions; Definition of Consensus Sites In Glycosaminoglycan Binding Proteins", <i>Bioessays</i> , 20, 1998, pages 156-167.
BG	J.R. Fromm et al., "Pattern And Spacing Of Basic Amino Acids In Heparin Binding Sites", <i>Arch Biochem Biophys</i> 343, 1997, pages 92-100.
BH	S. Liu et al., "A Heparin-Binding Synthetic Peptide Of Heparin/Heparan Sulfate-Interacting Protein Modulates Blood Coagulation Activities", <i>Proc. Natl. Acad. Sci.</i> , 94, 1997, pages 1739-1744.

SUBSTITUTE FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 08321-125US1	SERIAL NO. Not Yet Known
		APPLICANT: San Antonio et al.	
		INTERNATIONAL FILING DATE March 29, 2004	GROUP Not Yet Known

BI	G.J. Taylor et al., "Glycosaminoglycan Specificity Of A Heparin-Binding Peptide", <i>Pept Res</i> , 1995, pages 286-293.
BJ	W.A. Patton 2 nd et al., "Identification Of A Heparin-Binding Protein Using Monoclonal Antibodies That Block Heparin Binding To Porcine Aortic Endothelial Cells", <i>Biochem J</i> , 311, 1995, pages 461-469. Abstract Only.
BK	K Mizuno et al., "Hairpin Loop And Second Kringle Domain Are Essential Sites For Heparin Binding And Biological Activity Of Hepatocyte Growth Factor", <i>J. Biol Chem</i> , 269, 1994, pages 1131-1136.
BL	T.W. Wakefield et al., "Reversal Of Low-Molecular-Weight Heparin Anticoagulation By Synthetic Protamine Analogues", <i>J. Surgical Research</i> , 56, 1994, pages 586-593.
BM	D.S. Ferran et al., "Design And Synthesis Of A Helix Heparin-Binding Peptide", <i>Biochemistry</i> , 31, 1992, pages 5010-5016.
BN	A.D. Cardin, "Molecular Modeling Of Protein-Glycosaminoglycan Interactions", <i>Arteriosclerosis</i> , 9, 1989, pages 21-32.
BO	B.R. Tomasini et al., "On The Identity Of Vitronectin And S-Protein: Immunological Crossreactivity And Functional Studies", <i>Blood</i> , 68, 3, 1986, pages 737-742.
BP	H. Margalit et al., "Comparative Analysis Of Structurally Defined Heparin Binding Sequences Reveals A Distinct Spatial Distribution Of Basic Residues", <i>The Journal Of Biological Chemistry</i> , 268, 1983, pages 19228-19231.
BQ	H.C. deBoer, et al., "Binding Of Vitronectin-Thrombin-Antithrombin III Complex To Human Endothelial Cells Is Mediated By The Heparin Binding Site Of Vitronectin", <i>The Journal Of Biological Chemistry</i> , 267, 1982, pages 2264-2268.
BR	J.M. McPherson, et al., "The Effects of Heparin on the Physicochemical Properties of Reconstituted Collagen", <i>Collagen Rel. Res.</i> , 1:65-82 (1998).
BS	L.H. Lam, et al., "The Separation of Active and Inactive Forms of Heparin", <i>Biochem. Biophys. Res. Comm.</i> , 69(2):570-577 (1976).
BT	J.D. San Antonio, et al., "Heparin Sensitive and Resistant Vascular Smooth Muscle Cells: Biology and Role in Restenosis", <i>Connective Tissue Research</i> , 37(1-2):87-103.
BU	J.S. San Antonio, et al., "Interactions of Syndecan-1 and Heparin with Human Collagens", <i>Glycobiology</i> , 4(3):327-332 (1994).
BV	U. Lindahl, et al., "Glycosaminoglycans and Their Binding to Biological Macromolecules", <i>Ann. Rev. Biochem.</i> , 47:385-417 (1978).
BW	J. Lawler, et al., "The Structure of Human Thrombospondin, and Adhesive Glycoprotein with Multiple Calcium-Binding Sites and Homologies with Several Different Proteins", <i>J. Cell Biology</i> , 103:1635-1648 (1986).
BX	E.C. Tsilibary, et al., "Heparin Type IV Collagen Interactions: Equilibrium Binding and Inhibition of Type IV Collagen Self-Assembly", <i>J. of Biological Chemistry</i> , 263(35): 19112-19118 (1988).
BY	F.J. Bober Barkalow, et al., "Localization of the Major Heparin-Binding Site in Fibrinectin", <i>J. Biological Chemistry</i> , 266(12):7812-7818 (1991).
BZ	R. L. Jackson, et al., "Glycosaminoglycans: Molecular Properties, Protein Interactions, and Role in Physiological Processes", <i>Physiological Reviews</i> , 71(2):481-539 (1991).
CA	M.K. Lee, et al., "Analysis of Affinity and Structural Selectivity in the Binding of Proteins to Glycosaminoglycans: Development of a Sensitive Electrophoretic Approach", <i>Proc. Natl. Acad. Sci.</i> , 88:2768-2772 (1991).
CB	J. Sandstrom, et al., "The Heparin-Binding Domain of Extracellular Superoxide Dismutase C and Formation of Variants with Reduced Heparin Affinity", <i>J. Biological Chemistry</i> , 267(25):18205-18209 (1992).

SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 08321-125US1	SERIAL NO. Not Yet Known
	APPLICANT: San Antonio et al.	
	INTERNATIONAL FILING DATE March 29, 2004	GROUP Not Yet Known

	CC	N. Guo, et al., "Heparin-Binding Peptides from the Type I Repeats of Thrombospondin", <i>Journal of Biological Chemistry</i> , 267(27):19349-19355 (1992).
	CD	M. Maccarana, et al. "Minimal Sequence in Heparin/Heparan Sulfate Required for Binding of Basic Fibroblast Growth Factor", <i>Journal of Biological Chemistry</i> , 268(32):23898-23905 (1993).
	CE	L.D. Thompson, et al., "Energetic Characterization of the Basic Fibroblast Growth Factor-Heparin Interaction: Identification of the Heparin Binding Domain", <i>Biochemistry</i> , 33:3831-3840 (1994).
	CF	N. Parthasarathy, et al., "Oligosaccharide Sequences of Endothelial Cell Surface Heparan Sulfate Proteoglycan with Affinity for Lipoprotein Lipase", <i>Journal of Biological Chemistry</i> , 269(35):22391-22396 (1994).
	CG	P. Wong, et al. "Analysis of Putative Heparin-Binding Domains of Fibroblast Growth Factor-1", <i>Journal of Biological Chemistry</i> , 270(43):25805-25811 (1995).
	CH	J.D. San Antonio, et al., "Mapping the Heparin-Binding Sites on Type 1 Collagen Monomers and Fibrils", <i>Journal of Cell Biology</i> , 125(5):1179-1188 (1994).
	CI	R. Matsumoto, et al., "Packing of Proteases and Proteoglycans in the Granules of Mast Cells and Other Hematopoietic Cells", <i>Journal of Biological Chemistry</i> , 270(33):19524-19531 (1995).
	CJ	U. Lindahl, et al. "Regulated Diversity of Heparan Sulfate", <i>Journal of Biological Chemistry</i> , 273(39):24979-24982 (1998).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.